IN THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application.

Listing of Claims:

1.   (Currently Amended)   A method of specifying a behavior of a system, comprising:

(i)   providing a Graphic User Interface (GUI) for a system, whose behavior is being specified, said ~~GUI~~ system including at least one object; which has at least one property that does not change in reaction to an input unless change is described during playing in;

(ii) ~~(i)~~   playing-in a scenario by ~~operating at least one object of a Graphic User Interface (GUI) of the system, whose behavior is being specified; and then specifying a system reaction in response to said operating~~ performing the following steps (a), (b), (c) as many times as required:

(a) receiving description of at least one input;

(b) receiving description of change in at least one property of at least one object of said GUI in reaction to at least one of said inputs; and

(c) changing said at least one property of said at least one object in accordance with said received description of change; and

(iii) ~~(ii)~~ automatically constructing at least part of a formal system behavior specification that corresponds to the scenario, based at least partly on said playing in.

2.   (Cancelled)

3.   (Currently Amended)   The method according to Claim 1, wherein said step (ii) ~~(i)~~ further includes at least one of the following:

a)   ~~specifying~~ describing user action input by operating at least one of said objects;

b)   ~~specifying~~ describing environment action input by operating at least one of said objects; and

c)   ~~specifying system reaction~~ describing said change by operating at least one of said objects.

4.   (Currently Amended)   The method according to Claim 1, wherein said objects include at least one internal object and wherein said step ~~(i)~~ (ii) ~~further~~ includes operating at least one internal object.

5.   (Currently Amended)   The method according to Claim 1, wherein said ~~objects include at least one internal object and wherein said step (i) further includes~~ description is provided through operating at least one ~~internal~~ of said objects.

6.   **(Currently Amended)**   The method according to Claim 1, further comprising the step of:
defining at least one control construct and wherein said step ~~(ii)~~ (iii) includes constructing formal system
behavior specification that corresponds to the control construct.

7.   **(Original)**   The method according to Claim 6, wherein said control construct step includes
creating generalization and loops selected from the group that includes dynamic loops, unbound loops
and fixed loops.

8.   **(Currently Amended)**   The method according to Claim 1, wherein said step ~~(ii)~~ (iii) includes
constructing symbolic messages.

9.   **(Cancelled)**

10.   **(Previously Presented)**   The method according to Claim 1, wherein said formal system behavior
specification being at least one Live sequence chart (LSC).

11.   **(Original)**   The method according to Claim 1, wherein said formal system behavior
specification being Temporal logic language.

12.   **(Original)**   The method according to Claim 1, wherein said formal system behavior
specification being at least one Symbolic timing diagram.

13.   **(Original)**   The method according to Claim 1, wherein said formal system behavior
specification being at least one Timed Buchi Automata.

14.   **(Currently Amended)**   The method according to Claim 1, further comprising:
   ~~(iii)~~(iv)   playing-out said scenario by ~~operating said at least one object of said GUI, wherein~~
            performing the following steps (d) and (e) as many times as required:
            (d)   receiving said description of said at least one input; and
            (e)   in response to ~~said playing-out,~~ at least one ~~object~~ of said inputs ~~GUI reflects a~~
            ~~reaction if said system,~~ changing said at least one property of said at least one object in
            accordance with said constructed formal system specification.

15.   **(Currently Amended)**   The method according to Claim 1, further comprising the step of:

defining at least one condition that may or must hold regarding the system, and wherein said step (ii) (iii) includes constructing formal system behavior specification that corresponds to said at least one condition.

16.   **(Currently Amended)**   The method according to Claim 15, wherein at least one of said conditions includes defining condition regarding one or more of ~~the operated~~ said objects.

17.   **(Original)**   The method according to Claim 10, further comprising the step of: selectively modifying at least one of said charts.

18.   **(Cancelled)**

19.   **(Currently Amended)**   An apparatus for specifying a behavior of a system, comprising:

a Graphic User Interface (GUI) of the system whose behavior is being specified, said GUI including at least one object <u>which has at least one property that does not change in reaction to an input unless change is specified during playing-in</u>; and

a play engine configured to <u>play in scenarios by receiving descriptions of inputs, receiving descriptions of changes in properties of objects of said GUI in reaction to inputs, and changing properties of objects of said GUI in accordance with said received descriptions, and configured to</u> construct <u>at least part of</u> a formal system behavior specification corresponding at least partly to ~~a~~ <u>said played in scenarios</u>. ~~scenario, said scenario having been played in by operating at least one object of said GUI and specifying a system reaction to said operating~~.

20.   **(Currently Amended)**   A method for playing out a scenario ~~in a system~~, comprising:

(i)   <u>providing Graphic User Interface (GUI) of a system whose behavior is specified in a formal system behavior specification, said GUI including at least one object which has at least one property that does not change in reaction to an input except in accordance with said formal system behavior specification, and</u>

(ii)   playing-out a scenario by <u>performing the following steps (a) and (b) as many times as required:</u>

(a)   <u>receiving description of at least one input; and</u>

(b)   <u>changing at least one property of</u> ~~operating at least one object of a graphic user interface (GUI) of a system whose behavior in said scenario has been at least partly specified in a formal system behavior specification, and~~ at least one object of said GUI ~~reflecting~~ <u>in</u>

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reaction ~~of said system~~ to <u>at least one of</u> said ~~operating, said reaction being~~ <u>described</u> <u>inputs</u> in accordance with said formal system behavior specification..

21.   **(Cancelled).**

22.   **(Previously Presented)** The method according to Claim 20, wherein said formal system behavior specification being at least one Live sequence chart (LSC).

23.   **(Original)**   The method according to Claim 20, wherein said formal system behavior specification being Temporal logic language.

24.   **(Original)**   The method according to Claim 20, wherein said formal system behavior specification being at least one Symbolic timing diagram.

25.   **(Original)**   The method according to Claim 20, wherein said formal system behavior specification being at least one Timed Buchi Automata.

26.   **(Original)**   The method according to Claim 20, wherein said playing out includes: testing the behavior of the system directly from the system behavior specification.

27.   **(Previously Presented)** The method according to Claim 26, wherein said testing includes running scenarios and forbidden scenarios.

28.   **(Original)**   The method according to Claim 20, further comprising the step of recording at least one played out scenario, constituting a run.

29.   **(Original)**   The method according to Claim 22, wherein said system behavior specification includes existential charts and universal charts, and wherein said universal charts include user action part and system reaction part.

30.   **(Original)**   The method according to Claim 20, further including the step of: indicating if the system behavior specification or portion thereof is successful or violated.

31.   **(Previously Presented)** The method according to Claim 20, wherein said system behavior specification includes existential charts and universal charts, and wherein said universal charts include user action part, environment action part and system reaction part, and further including the step of

providing a run that includes either or both of user and environment part and system reaction part, constituting a played scenario, and re-playing the run.

32.   **(Original)**   The method according to Claim 20, wherein said system behavior specification includes existential charts and universal charts, and wherein said universal charts include user action part, environment action part and system reaction part, and further comprising the step of, tracing either or both of said existential and universal charts, and indicating if a chart is successful or violated.

33.   **(Original)**   The method according to Claim 31, further comprising the step of providing either or both of the user action part and environment action part of said run, replaying the run and indicating if the existential charts are successful or violated.

34.   **(Original)**   The method according to Claim 22, wherein said LSC charts include at least two live copies of the same chart simultaneously.

35.   **(Original)**   The method according to Claim 20, wherein said objects include at least one internal object and wherein said step further includes operating at least one internal object.

36.   **(Original)**   The method according to Claim 35, wherein said system GUI includes an object map and further comprising the step of: reflecting in the object map the result of the playing-out.

37.   **(Original)**   The method according to Claim 4, wherein said system GUI includes an object map and further comprising the step of: reflecting in the object map the result of the playing-in.

38.   **(Currently Amended)**   The method according to Claim ~~5~~ 20, wherein said ~~system GUI includes an object map and further comprising the step of: reflecting in the object map the result of the playing-in~~ description is provided through operating at least one of said objects.

39.   **(Currently Amended)** An apparatus for playing out a scenario in a system, comprising:
        a Graphic User Interface (GUI) of the system whose behavior ~~in a scenario~~ has been at least partly specified in a formal system behavior specification, said GUI including at least one object which has at least one property that does not change in reaction to an input except in accordance with said formal system behavior specification; and
        a play engine configured to play out ~~said~~ scenarios by ~~causing at least one object of said GUI to reflect a~~ receiving descriptions of inputs, and configured to change properties of objects in reaction ~~of~~

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~~said system~~ <u>to inputs</u> in accordance with said formal system behavior specification~~, when at least one object of said GUI is operated on~~.

40.   **(Original)**   The method according to Claim 14, wherein said playing-out is used to construct a prototype.

41.   **(Previously Presented)** The apparatus according to Claim 39, wherein said playing out is used to construct a prototype.

42.   **(Original)**   The method according to Claim 20, wherein said playing-out is used to construct a prototype.

43.   **(Original)**   The method according to Claim 14, wherein said playing-out is used to construct a tutorial.

44.   **(Original)**   The apparatus according to Claim 39, wherein said playing-out is used to construct a tutorial.

45.   **(Original)**   The method according to Claim 20, wherein said playing-out is used to construct a tutorial.

46.   **(Original)**   The method according to Claim 14, wherein said playing-out is used to construct a final implementation of a system.

47.   **(Original)**   The method according to Claim 20, wherein said playing-out is used to construct a final implementation of a system.

48.   **(Previously Presented)**   The apparatus according to Claim 39, wherein said playing-out is used to construct a final implementation of a system.

49.   **(Original)**   A computer program product that includes a storage medium storing a computer code for implementing the method steps of Claim 1.

50.   **(Original)**   A computer program product that includes a storage medium storing a computer code for implementing the method steps of Claim 20.

51.   **(Previously Presented)** The method according to Claim 20, further including animating interaction between GUI objects.

52.   **(New)** The method according to claim 20, wherein said formal system behavior specification includes at least two Live Sequence Charts (LSC), each specifying an object property change in reaction to a same input; and wherein said changing said at least one property includes taking into account said specified object property change in at least one of said at least two charts prior to changing said at least one property of said at least one object of said system in reaction to said same input.